

FACE INVESTIGATION

SUBJECT: Parachute Jump Instructor and Jump Student Die From Fall After Chute Lines Became Entangled During Tandem Jump From Plane

SUMMARY: A 33-year-old male parachute jump instructor (victim #1) and a 29-year-old jump student (victim #2) died upon impact with the ground following an unsuccessful tandem parachute jump. Victim #2 had contacted the victim #1 for a formal parachute lesson. The lesson included connecting two harnesses together which allowed victim #1 and victim #2 to jump as one unit. Victim #1 carried the chute pack on his back and victim #2 was attached to his chest via the harness in a back-to-chest position. On the day of the incident, a number of parachutists boarded a plane and ascended to an elevation of 10,500 feet. The tandem jumpers jumped from the plane, and were followed by two other single jumpers. Victim #1's drogue chute, which positions the jumpers and pulls out the main chute, deployed, and shortly thereafter the main chute began to deploy. Subsequently, the main chute and reserve chute lines became entangled in the drogue lines, and the chutes were unable to fully deploy. Victim #1 worked to free the tangled lines as two victims continued to fall. These attempts were unsuccessful, and the two victims struck the ground at a golf course. EMS responders and the medical examiner arrived, and the victims were pronounced dead at the scene and were transported to the county morgue. The Wisconsin FACE investigator concluded that, to prevent similar occurrences, parachute jumpers, organizations, and manufacturers should:

! continue to support and conduct research efforts on incorporating fail-safe systems into the maintenance, preparation and use of parachutes and equipment.

INTRODUCTION: On August 24, 1993, a 33-year-old parachute jump instructor (victim #1) and a 29-year-old jump student (victim #2) both died when the parachute they were using did not fully deploy. The Wisconsin FACE investigator learned of the incident through a television news report on August 24, 1993. On November 3, 1993, the WI FACE field investigator conducted an investigation of the incident. A visit was made to the site of the incident, and a company representative was interviewed. Photographs were taken of the site of the incident. The investigator obtained copies of the death certificate, coroner's report, police report with eyewitness accounts of the incident, and police photographs. Victim #1 was a self-employed parachute jump instructor who provided lessons in parachute jumping. Victim #1 was an accomplished parachutist with approximately 3000 jumps to his credit. There is no additional information about the experience, training, history of injury, or safety program of victim #1. Victim #2 was participating in his first jump.

INVESTIGATION: Victim #2 had contacted victim #1 for a formal parachute lesson. The lesson included having each victim wear harnesses which were connected together at their shoulders and hips, allowing victim #1 and victim #2 to jump as one unit. This particular jump is referred to as a "tandem jump" which is basically

used for novice or first time jumpers. Victim #1 carried the chute pack on his back and victim #2 was attached to his chest via the harness in a back-to-chest position. On the day of the incident, four parachutists boarded a plane and ascended to an elevation of 10,500 feet. The tandem jumpers jumped from the plane, and were followed by two other single jumpers. Victim #1's drogue chute, which was intended to position the jumpers and pull out the main chute, was deployed, and shortly thereafter the main chute began to deploy. Subsequently, the main chute and reserve chute lines became entangled in the drogue lines, and the main and reserve chute were unable to fully deploy. Victim #1 worked to free the tangled lines as the two victims continued to fall. These attempts were unsuccessful, and the two victims struck the ground at a golf course. EMS responders and the medical examiner arrived, and the victims were pronounced dead at the scene and were transported to the county morgue. The parachute equipment was examined by the sheriff's department, members of the FAA, a representative of the chute supplier, and an expert skydiver. Although no defects or malfunctions were noted with the equipment, it appeared that the main container pin had been prematurely released, which may have caused entanglement of the main parachute lines. The reason for the premature release of the containment pin is still unknown, but possible causes could include: snagging of the container upon exit from the plane, mis-routing of the drogue bridle, or the pin partially working its way loose prior to exit.

CAUSE OF DEATH: The death certificate states the cause of death as multiple injuries.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Parachute jumpers, organizations and manufacturers should continue to support and conduct research efforts on incorporating fail-safe systems into the maintenance, preparation and use of parachutes and equipment.

Discussion: In this incident, the reason that the parachute failed to deploy correctly is unknown at this time. Ongoing investigation and future research may prevent future parachute failures.